SIRIUS SATELLITE RADIO INC.
XM RADIO INC.

March 22, 2002

Via Electronic Filing
Mr. William F. Caton
Acting Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: *Ex Parte* Presentation
IB Docket No. 95-91

Dear Mr. Caton:

This filing highlights evidence in the record that WCS licensees can prevent any interference from satellite radio repeaters by incorporating inexpensive RF AGC into their receivers, and that this technique works regardless of where the WCS receiver is located relative to the satellite radio repeater.

In an *ex parte* filing dated November 2, 2001, BellSouth and WorldCom submitted graphical demonstrations of the areas of interference they predicted would result to their receivers from DARS higher-power repeaters. *See* WCS Ex Parte Filing, IB Docket 95-91 (Nov. 2, 2001). In response, XM Radio Inc. ("XM Radio") submitted an *ex parte* on December 21, 2001, in which it refuted these analyses and demonstrated that, with RF AGC incorporated in WCS receivers, higher power DARS repeater will produce virtually no areas of potential interference to WCS receivers. *See* XM Radio Ex Parte Filing, IB Docket 95-91 (Dec. 21, 2001). Attached hereto is a summary of these findings and a comparison of the two *ex parte* filings.

Please direct any questions regarding this matter to the undersigned.

Very truly yours,

\s\Carl R. Frank
Carl R. Frank
WILEY REIN & FIELDING LLP
1776 K Street, NW
Washington, DC 20006
(202) 719-7000

Counsel to Sirius Satellite Radio Inc.

\s\ Bruce D. Jacobs
Bruce D. Jacobs
SHAW PITTMAN LLP
2300 N Street, NW
Washington, DC 20037
(202) 663-8000

Counsel to XM Radio Inc.

cc: Robert Bromery
Robert Eckert
Richard Engelman
Bruce Franca

Ability of Front-End RF AGC to Avoid Potential Interference to WCS Consumer Receivers

The attached propagation studies provide further evidence that the use of front-end RF AGC in WCS consumer receivers will protect those receivers from overload and intermodulation that might otherwise be caused by adjacent band operations of either DARS repeaters or other WCS licensees.

In November 2001, BellSouth submitted the attached Figures 1 and 4 purporting to demonstrate the predicted interference to its WCS receivers from DARS higher-power repeaters. *See* WCS Ex Parte Filing, IB Docket 95-91, pp. 31 and 30 (Nov. 2, 2001). The yellow and red areas in these figures show the areas in which BellSouth predicts interference. Figure 6 shows similar predicted interference by WorldCom. *Id*. at p. 37. Again, the yellow and red areas are supposed to show areas of interference.

In fact, as XM explained in greater detail in its December 21, 2001 *ex parte* technical filing, the WCS technical analysis used incorrect propagation characteristics and substantially misstated the intermodulation threshold of the WCS receivers. *See* XM Radio Ex Parte Filing, IB Docket 95-91 (Dec. 21, 2001). When the propagation models are corrected, they produce studies that reflect virtually no areas of potential interference. In Figures 2 and 3, the areas colored in blue show the areas in Figure 1 where RF AGC will prevent interference to BellSouth's WCS receivers. Similarly, the area colored in blue in Figure 5 shows the area in Figure 4 where RF AGC will prevent interference to BellSouth's WCS receivers. The areas colored in blue and green in Figure 7 show the areas in Figure 6 where RF AGC will prevent interference to WorldCom's WCS receivers. As can be seen, the areas in which RF AGC will prevent interference to WCS receivers completely overlap the areas where BellSouth and WorldCom predicted interference will occur.

Figure 1

(originally appeared as Figure 15 in WCS Coalition's November 2, 2001 ex parte filing)

SDARS Repeater at 7.3KW (Original Design) Interference to WCS System

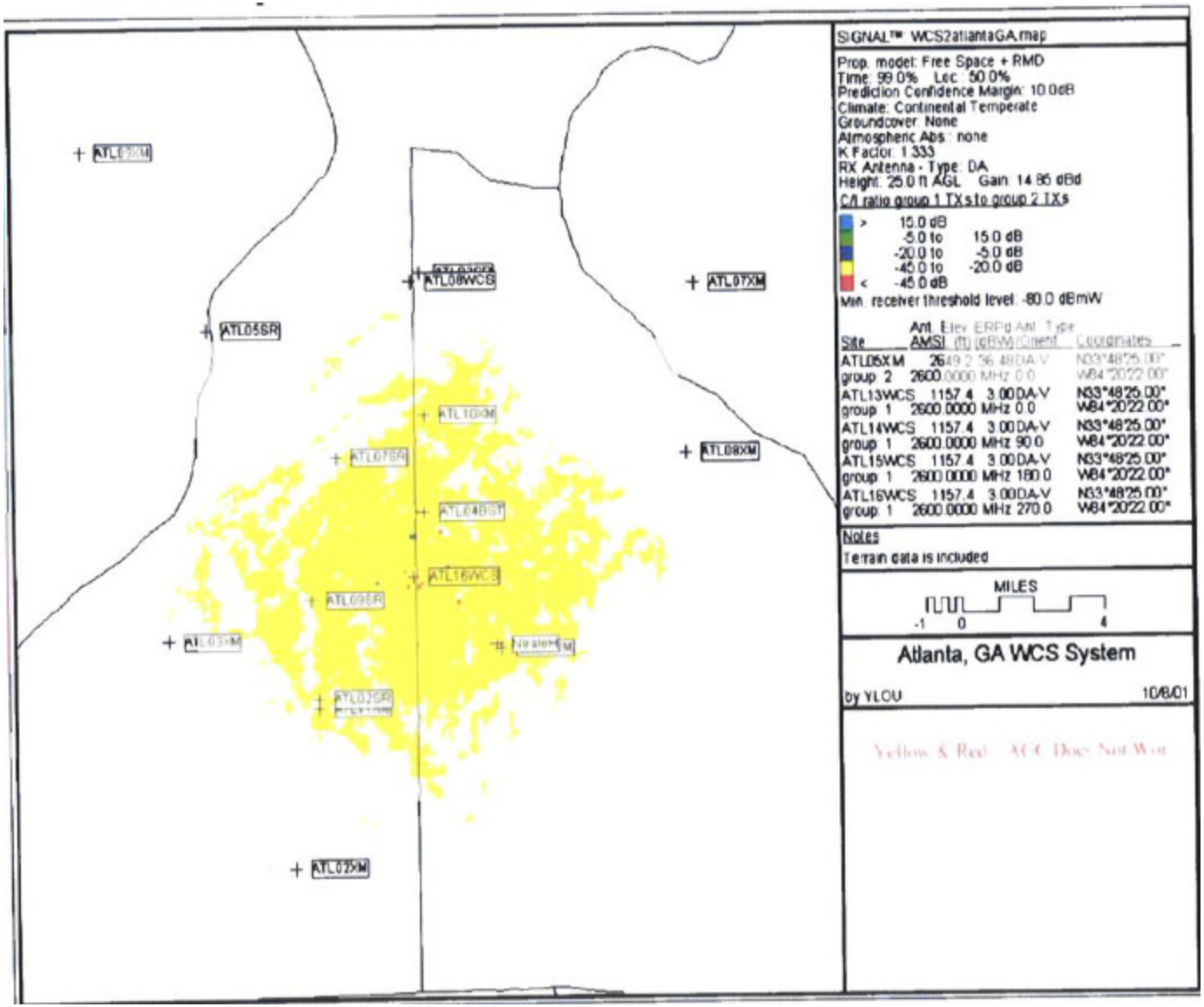

Figure 2

(originally appeared as Figure 1 in XM Radio's December 21, 2001 ex parte filing)

EDX Simulation for Problem Demonstration 10 with Correct IMD

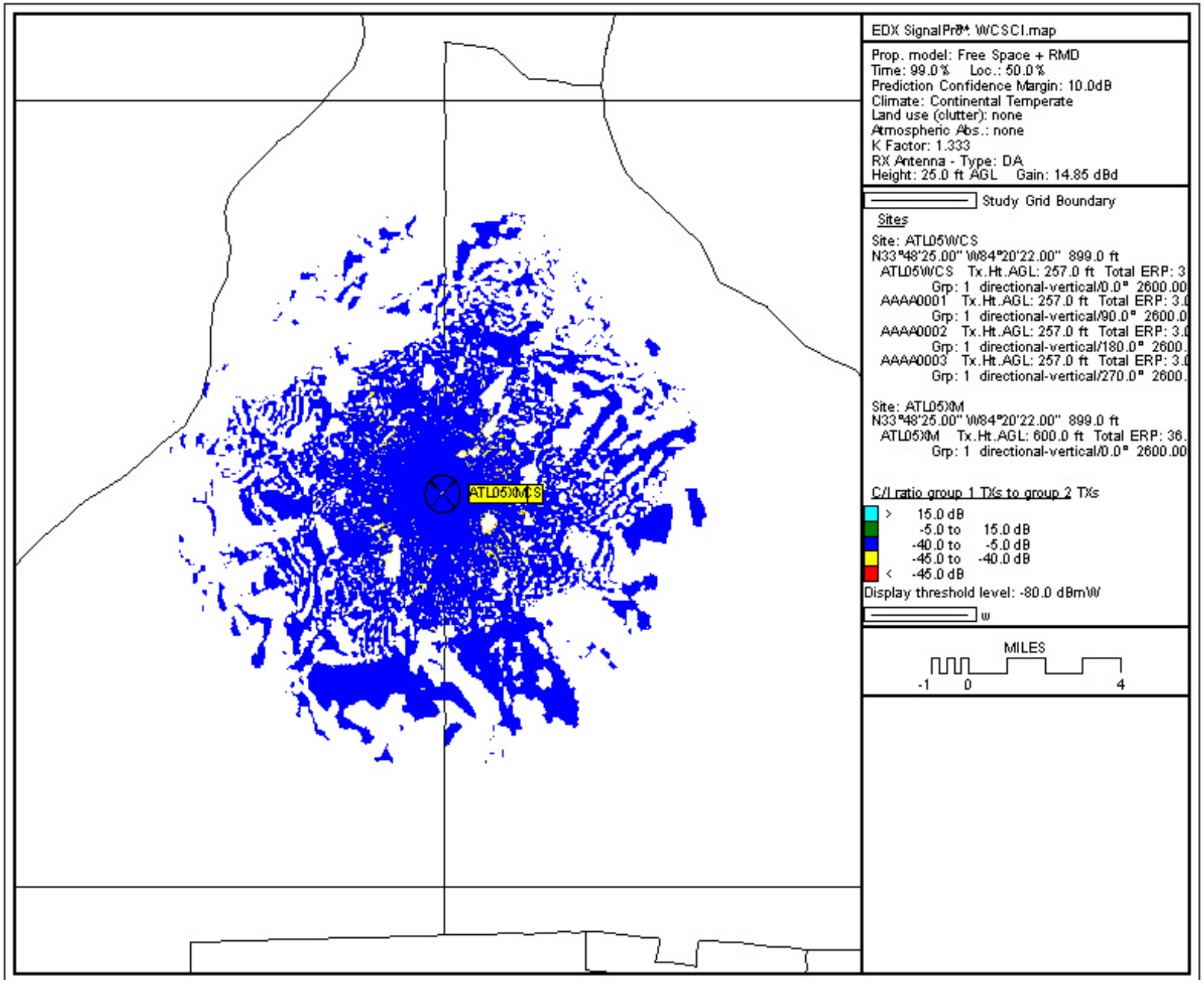

Figure 3

(originally appeared as Figure 2 in XM Radio's December 21, 2001 ex parte filing)

EDX Simulation for Problem Demonstration 10 with BeamReach Receiver

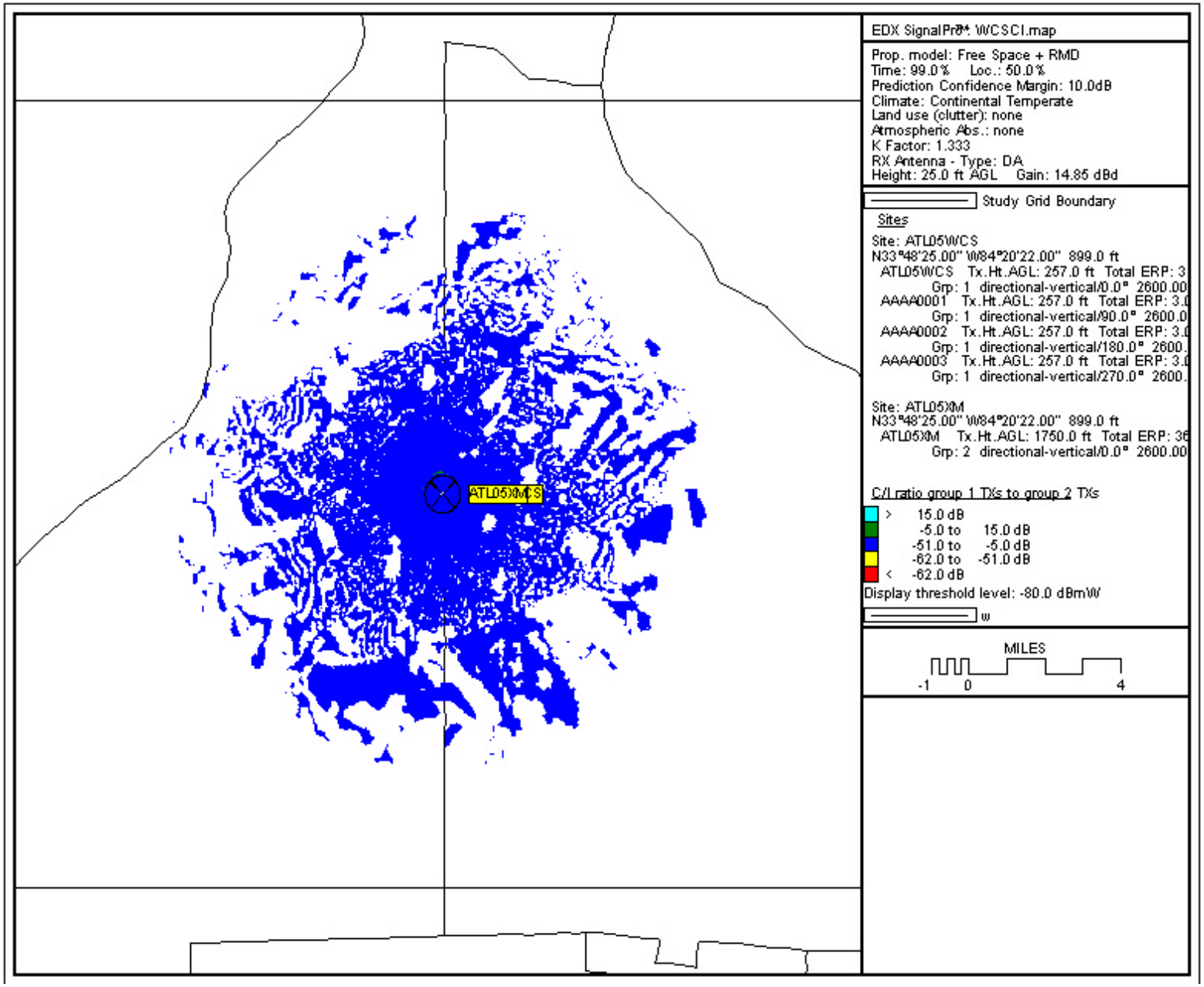

Figure 4

(originally appeared as Figure 14 in WCS Coalition's November 2, 2001 ex parte filing)

SDARS (at 40KW) Interference to WCS System

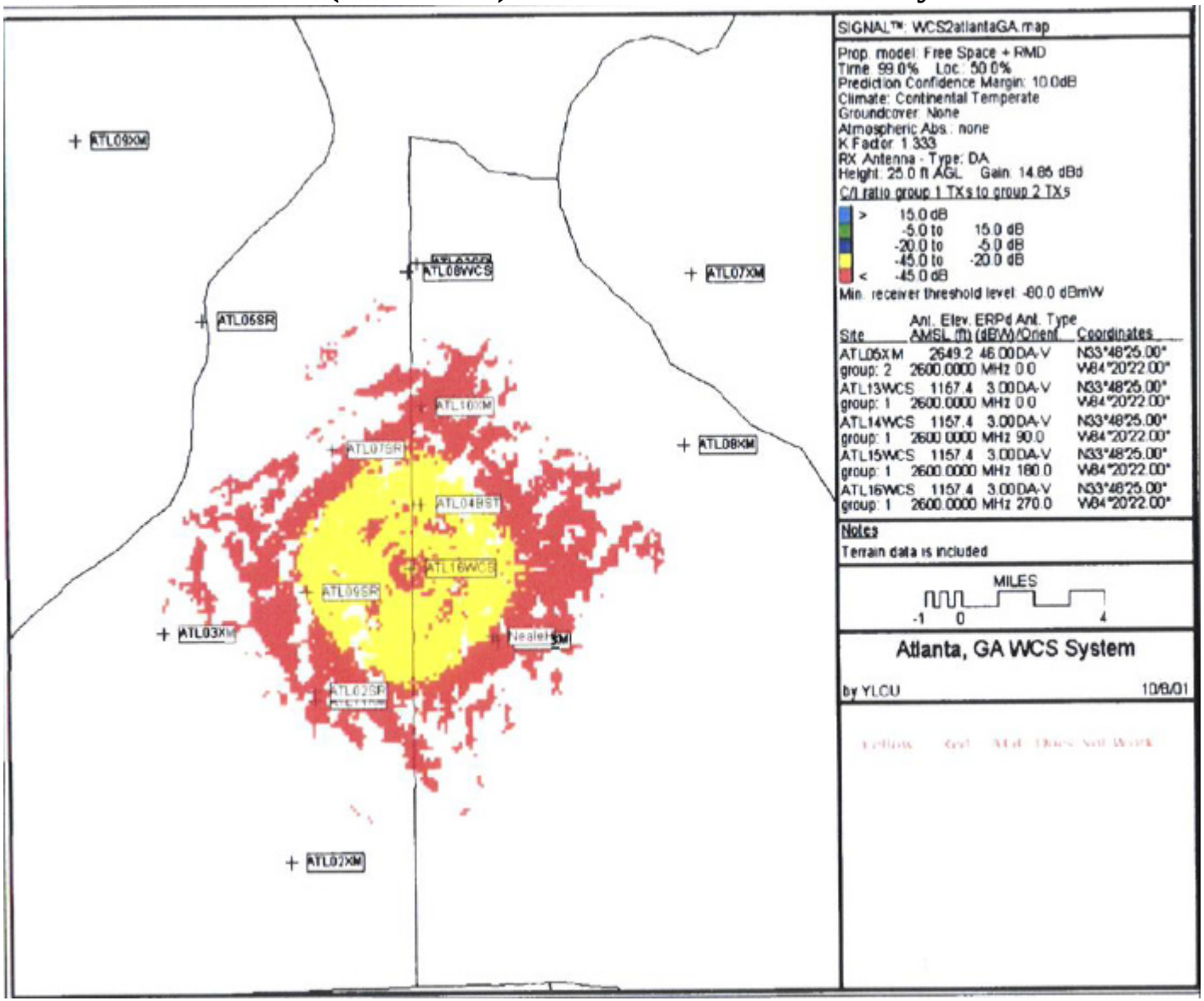

Figure 5

(originally appeared as Figure 3 in XM Radio's December 21, 2001 ex parte filing)

EDX Simulation for Problem Demonstration 9 with BeamReach Receiver

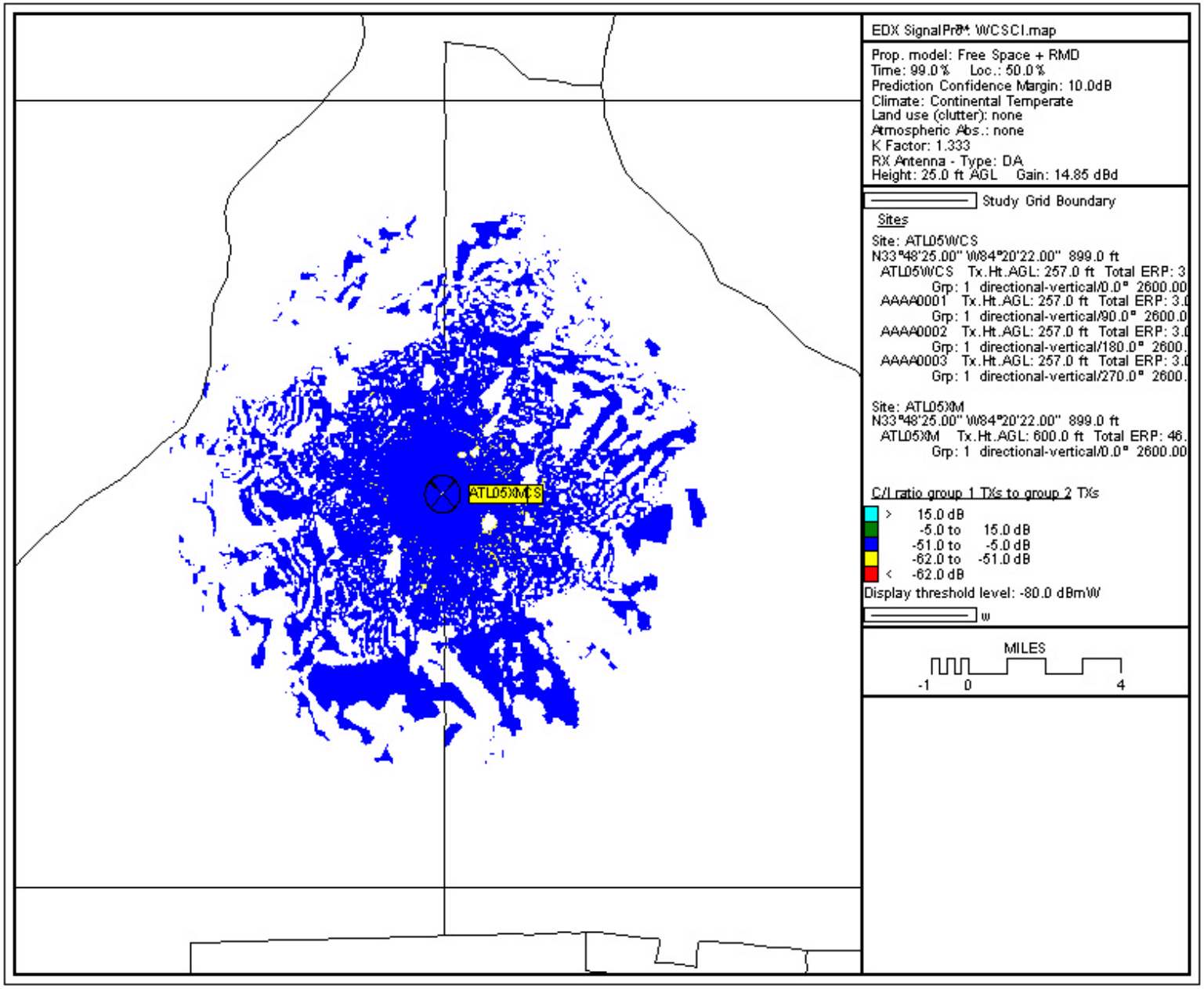

Figure 6

(originally appeared as Figure 21 in WCS Coalition's November 2, 2001 ex parte filing)

SDARS (XM & Sirius) Vs. WorldCom (DAL08)

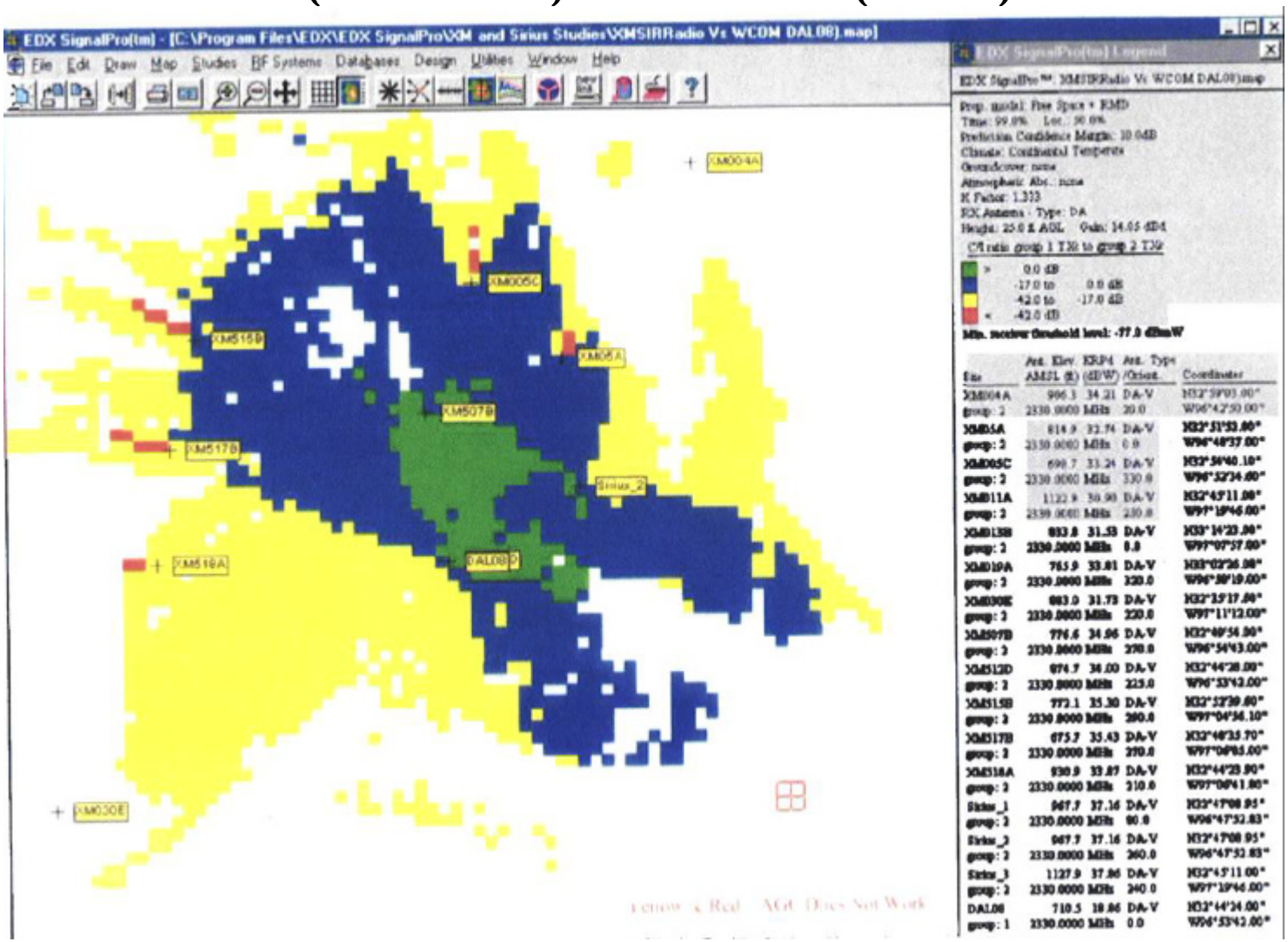

Figure 7

(originally appeared as Figure 4 in XM Radio's December 21, 2001 ex parte filing)

EDX Simulation for WorldCom Base Station DAL08